

CLAIMS

1. Device for sterilising objects (19, 40, 42, 50), in particular medical or surgical instruments, of the type adapted to create from a gaseous flow subjected to an electric field a gaseous plasma of which the post-discharge flow which issues therefrom is brought into contact with the surface of the objects to be treated, characterized in that:
 - the gaseous flow is exclusively constituted by nitrogen,
 - it comprises means for heating said objects adapted to take the latter, in the course of treatment, to a temperature of at least 60°C.
2. Device according to Claim 1, characterized in that the post-discharge flow which issues from the gaseous plasma is admitted into a sterilisation chamber (7, 7') in which said objects (19, 40) are disposed.
3. Device according to one of the preceding Claims, characterized in that the walls of the sterilisation chamber are constituted by a material presenting a low capacity of recombination of the nitrogen atoms.
4. Device according to Claim 3, characterized in that the wall of the sterilisation chamber is constituted by glass and/or ceramics and/or a polymer.
5. Device according to one of Claims 2 to 4, characterized in that the sterilisation chamber is constituted by an autoclave.
6. Device according to Claim 5, characterized in that the means for heating said objects are constituted by the heating means peculiar to the autoclave.

7. Device according to one of the preceding Claims, characterized in that the objects (19) are arranged in a metal object-holder (17) of which the nature is such that, under the effect of the recombination of the nitrogen atoms, this object-holder heats up and ensures heating of the objects (19) that it contains.
- 5 8. Device according to Claim 7, characterized in that the object-holder is made of brass.
9. Device according to one of Claims 7 or 8, characterized in that the object-holder is provided with heating means (21).
- 10 10. Device according to one of Claims 5 to 9, characterized in that heating of the objects (19) contained in the sterilisation chamber (7) is ensured at least in part by the walls of the latter which, to that end, are constituted by a material adapted to heat up by recombination of the nitrogen atoms.
11. Device according to one of Claims 2 to 10, characterized in that the walls of the sterilisation chamber (7) are provided with additional, in particular
15 electric, heating means.
12. Device for sterilising apparatus (40, 42, 50) comprising tubes and internal cavities which it is desired to sterilise and which are in communication with the outside via inlet and outlet orifices, characterized in that it comprises means for injecting the post-discharge flow via an orifice in this apparatus through the
20 tubes and internal cavities thereof, this flow being expelled through the other orifice.
13. Device according to Claim 12, characterized in that the apparatus to be sterilised (40) is

arranged in a treatment chamber (7') which is likewise traversed by the post-discharge gas.

14. Method for sterilising objects, in particular medical or surgical instruments, in which a plasma is created by action of an electric field on a
5 gaseous flow and the post-discharge flow which issues therefrom is brought into contact with the surface of the objects to be treated, characterized in that:

- nitrogen is exclusively used as gaseous flow,
- heating of the objects to be treated to a temperature of at least 60°C is ensured.